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ABSTRACT

A study was conducted in fall 1985 to determine how well students at San Joaquin Delta College (SJDC) were prepared in reading, writing, and mathematics, comparing students by ethnicity, high school status, and age. SJDC uses the Comparative Guidance Placement (CGP) Tests to to assess all new students who do not have an Associate of Arts degree or who do not present achievement test scores equivalent to the national average for college-bound seniors. Study findings, based on scores of 3,666 students assessed for fall 1984 and 3,382 students assessed for fall 1985, included the following: (1) there was little difference between the 1984 and 1985 students, with 46% functioning at a high school level in reading and writing; (2) in mathematics, 60% were functioning at a high school level; (3) more SJDC students scored at lower levels than students in the national sample; (4) performances of ethnic groups varied strikingly; (5) in mathematics, more Asian students performed at the highest level than any other ethnic group; (6) SJDC's ethnic distribution reflected the distribution of California community colleges; and (7) there were not significant differences based upon age. Several pages feature tables and a bar graph. (LAL)

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PERFORMANCE OF SAN JOAQUIN DELTA COLLEGE FRESHMEN STUDENTS IN READING, WRITING AND MATH BY ETHNICITY, HIGH SCHOOL STATUS AND AGE

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October 1985

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Study Questions

How well prepared are students at San Joaquin Delta College in reading, writing and math? How do the various ethnic groups compare in reading, writing and math? How do high school graduates compare to non-graduates?

Methodology

San Joaquin Delta College uses the Comparative Guidance Placement (CGP) Tests in reading, writing, computation and applied arithmetic skills. The College assesses all new students who do not have an Associate of Arts degree or higher, or who do not present SAT or ACT scores equivalent to the National average for college-bound seniors.

The study includes all students who were assessed in the spring, summer and fall, for the fall 1984 and fall 1985 semesters. There were 3,666 students in 1984 and 3,382 in 1985. The College divides the students into one of three levels on each test: Level 1 are those students with the lowest scores and skills estimated to be below ninth grade; Level 2 are those students at the intermediate range and skills estimated to be at the high school level; Level 3 are those students who are ready for college level courses. An estimated reading grade level may be derived based upon a study by Graber (1976) in which CGP reading raw scores were converted to grade levels on the Nelson-Denny Reading Test. Not all students who are assessed enroll in credit courses, and a further study is underway to look at the difference between enrolled and unenrolled students.

Results

There is little difference between the 1984 and 1985 students. Approximately half the students (46%) are functioning at Level 2 in reading and writing with 25 percent each at Levels 1 and 3. In math, the two tests are added together and 29 to 31 percent are performing at Level 1, 60 to 61 percent at Level 2 and 9 to 10 percent at Level 3.

While Delta College only uses three levels in reading in assessing and advising, for purposes of this study four reading groups were also described. (See Table 1.)

More Delta College students score at the lower levels in reading and writing than students in the National sample (which includes four-year and two-year college students). Forty percent of the Delta College sample had reading raw scores between 5 and 17, compared to 23 percent of the National sample. Twenty-nine percent of the Delta College sample had reading scores between 0 and 14, compared to 12 percent of

the National sample. Approximately the same percent of Delta College students score in the middle range on both reading and writing, Group 2 or Level 2, as do the students in the National sample.

The performances of ethnic groups varies strikingly. Relatively few students (5% or less) scored at Group 1 in reading, less than 6th grade. However, 63 percent of the Asian, 65 percent of the Black, 55 percent of the Hispanic and 50 percent of the Filipino students performed at Group 2 level in reading between sixth and ninth grade. Only 26% of the Caucasian students scored at the Group 2 level and 29 percent of the Caucasian students were reading at the highest level compared to 12 percent or less of the other groups.

In math, more Asian students (21 percent) performed at the highest level compared to 12 percent or less for the other groups. Table 2 presents the numbers and percent for each ethnic group in reading, writing and math. (See Table 2.)

The ethnic distribution at San Joaquin Delta College reflects the ethnic distribution of all California Community Colleges. (See Table 3.) The performance of the various ethnic groups at San Joaquin Delta College may also be reflective of their performance at other colleges.

The performance of high school graduates and students with the GED or equivalent are very similar. However, non-high school graduates are more likely to perform at Level 1 in math at a higher rate — 48 percent compared to 24 or 25 percent for graduates or GED equivalents. The non-high school graduate is also more likely to perform at Level 1 in writing, 40 percent, compared to the other students, 20 to 22 percent.

Finally, the average age of students at the three levels of reading, writing, and math, was reviewed. There do not appear to be any significant differences based upon age though further statistical analysis is warranted.

Implications

Minority students score at lower levels in reading and writing than Caucasian students. An academic floor set at ninth grade would seriously affect the enrollment of minority students. Given the high school dropout rate of minority students and their lack of success in the high schools, it is unlikely that these students would return to the high school or adult school to bring up their skills. The community college can provide the remedial education these students need in order to be successful as shown by an earlier study done at Delta College, (Cox, Lewis, Stirton, 1985).

Minority students also perform more poorly in math with the exception of Asian students. However nearly all students (80 to 90%) need some review in arithmetic skills. This review can be taught at the community college, and most students (60%) would probably only need one semester to prepare them for algebra or higher level math.

TABLE 1
DELTA COLLEGE STUDENT PERFORMANCE FOR READING AND WRITING
COMPARED TO THE NATIONAL NORMS

Reading Score		Estimated Grade Level	Percent Delta Students*	National Norms
Level 1	0-14	5.2 - 8.9	29%	12%
Level 2	15-26	9.1 - 12.4	46%	42%
Level 3	27-35	12.8 - 15.2	25%	46%
Group 1	0-4	< 6th	2%	1%
Group 2	5-17	6.1 - 9.8	40%	23%
Group 3	18-27	10.0 - 12.8	38%	41%
Group 4	28-35	13.1 - 15.2	20%	36%
Writing Score				
Level 1	0-17	N/A	25%	12%
Level 2	18-27	N/A	48%	44%
Level 3	28-40	N/A	28%	44%
Math Score				
Level 1	0-28	N/A	31%	N/A
Level 2	29-50	N/A	60%	N/A
Level 3	51-60	N/A	09%	N/A

*1985 Statistics

TABLE 2

PERFORMANCE IN READING, WRITING, AND MATH

BY ETHNIC GROUP

1984

Reading	Am Ind/Alask		Asian/Pac Isl		Black/Negro		White/Cauc		Hisp/Span Sur		Filipino		Other		Unknown		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Group 1																		
Raw Score CGP 0-4																		
Grade Equiv. < 6.0	2	02	10	05	13	04	19	01	18	03	4	03	7	04	0	00	73	02
Group 2																		
Raw Score CGP 5-17																		
Grade Equiv. 6.0 - 9.8	27	32	131	63	214	65	553	26	318	55	67	50	76	50	13	46	1,399	38
Group 3																		
Raw Score CGP 18-27																		
Grade Equiv. 10.0-12.8	35	42	45	22	77	24	935	44	175	30	49	36	48	32	13	46	1,377	38
Group 4																		
Raw Score CGP 28-35																		
Grade Equiv. 13.0 +	20	24	22	10	23	07	617	29	65	12	15	11	21	14	2	7	785	22
Level 1																		
Raw Score CGP 0-14																		
Grade Equiv. < 9.0	20	24	119	57	191	58	359	17	260	45	54	40	60	40	7	25	1,070	29
Level 2																		
Raw Score CGP 15026																		
Grade Equiv. 9.1-12.4	38	45	67	32	112	34	1,055	50	238	41	64	47	69	45	17	61	1,660	46
Level 3																		
Raw Score CGP 27-35																		
Grade Equiv. 12.8+	26	31	22	11	24	08	710	33	78	14	17	13	23	15	4	14	904	25
TOTALS BY GROUP	84	02	208	06	327	09	2,124	58	576	16	135	04	152	04	28	01	3,634	100
Writing																		
Level 1	25	29	113	54	152	46	306	14	194	33	54	40	61	40	7	25	912	25
Level 2	38	44	70	33	145	44	993	46	290	50	58	43	64	41	15	54	1,673	46
Level 3	23	27	26	13	32	10	844	40	97	17	24	17	29	19	6	21	1,081	29

Table 2 (Continued)

	Am Ind/Alask		Asian/Pac Isl		Black/Negro		White/Cauc		Hisp/Span Sur		Filipino		Other		Unknown		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Math																		
Level 1	35	41	56	27	191	58	431	20	242	42	42	31	58	38	6	21	1,061	29
Level 2	46	53	108	52	126	38	1,463	68	307	53	82	60	86	56	21	75	2,239	61
Level 3	5	06	45	21	12	04	249	12	32	05	12	09	10	06	1	04	366	10
TOTALS BY GROUP	86	02	209	06	329	09	2,143	58	581	16	136	04	154	04	28	01	3,666	100
FALL 1985 STATISTICS																		
Reading																		
Group 1																		
Raw Score CGP 0-4																		
Grade Equiv. < 6.0	1	01	14	07	20	06	10	01	17	03	1	01	5	04	0	00	68	02
Group 2																		
Raw Score CGP 5-17																		
Grade Equiv. 6.0 - 9.8	36	46	134	64	209	62	551	27	293	56	52	62	71	51	0	00	1,346	40
Group 3																		
Raw Score CGP 18-27																		
Grade Equiv. 10.0-12.8	27	35	46	22	84	25	892	45	162	31	22	26	41	29	1	50	1,275	38
Group 4																		
Raw Score CGP 28-35																		
Grade Equiv. 13.0 +	14	18	14	07	23	07	551	27	50	10	9	11	23	16	1	50	685	20
Level 1																		
Raw Score CGP 0-14																		
Grade Equiv. < 9.0	25	32	128	61	184	55	326	16	233	45	35	42	55	39	0	00	986	29
Level 2																		
Raw Score CGP 15-26																		
Grade Equiv. 9.1-12.4	36	46	64	31	123	37	1,009	50	226	43	39	46	57	41	1	50	1,555	46
Level 3																		
Raw Score CGP 27-35																		
Grade Equiv. 13.8 +	17	22	16	08	29	08	669	33	63	12	10	12	28	20	1	50	833	25
TOTALS BY GROUP	78	02	208	06	336	10	2,004	60	522	15	84	02	140	04	2	00	3,374	100

Table 2 (Continued)

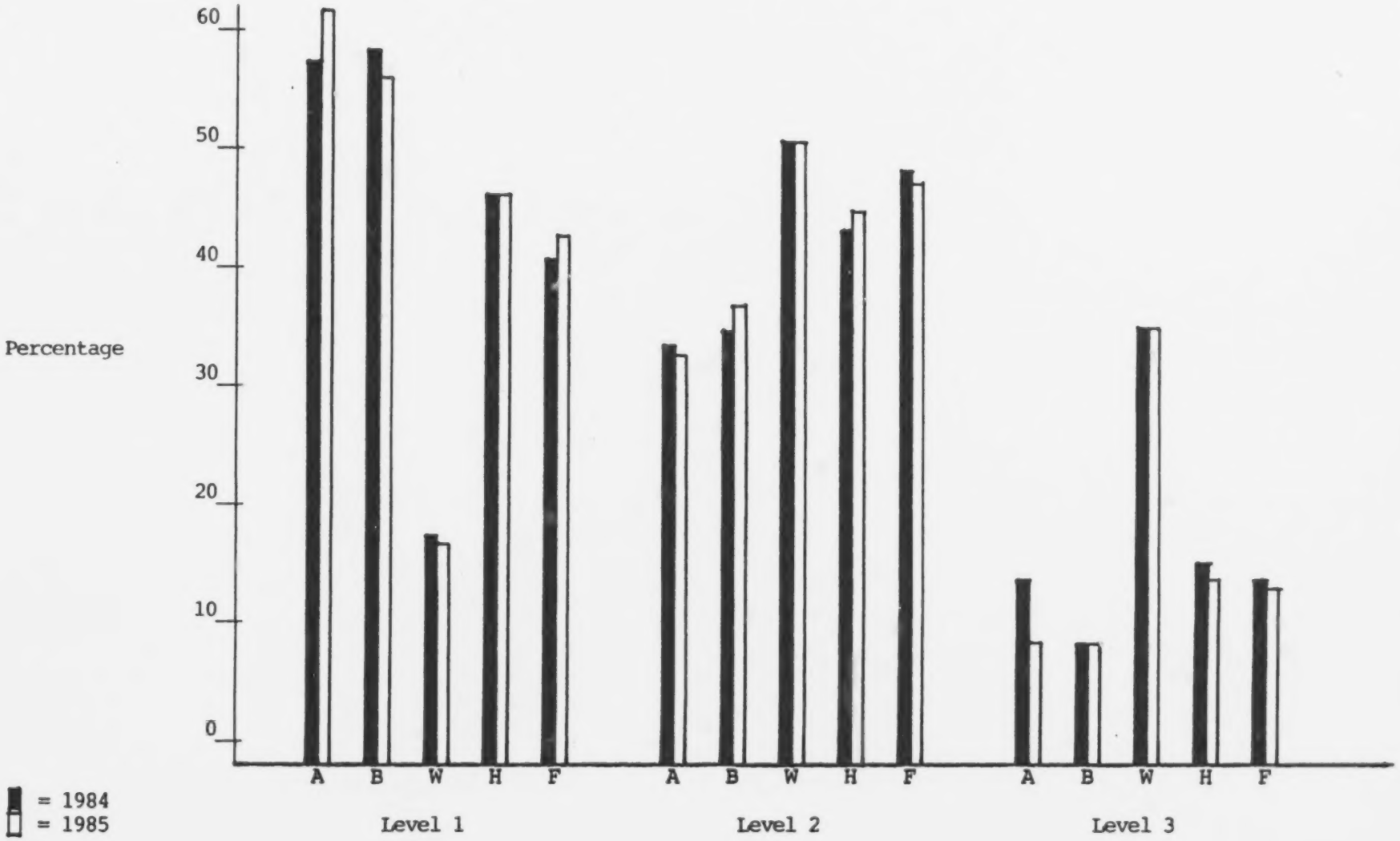
	Am Ind/Alask		Asian/Pac Isl		Black/Negro		White/Cauc		Hisp/Span Sur		Filipino		Other		Unknown		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Writing																		
Level 1	19	24	124	59	163	48	277	14	171	33	31	37	50	36	1	50	836	25
Level 2	36	46	57	27	142	42	993	49	277	53	40	48	62	44	0	00	1,607	47
Level 3	23	30	28	14	32	10	740	37	74	14	13	15	28	20	1	50	939	28
Math																		
Level 1	28	36	83	40	201	60	427	21	228	43	28	33	56	40	0	00	1,045	31
Level 2	46	59	107	51	128	38	1,335	66	279	53	46	55	77	55	1	50	2,019	60
Level 3	4	05	19	09	8	02	248	13	21	04	10	12	7	05	1	50	318	09
TOTALS BY GROUP	78	02	209	06	337	10	2,010	59	522	15	84	02	140	04	2	00	3,382	100

TABLE 3

ETHNIC DISTRIBUTION

Ethnic Group	Statewide Enrollment* Fall 1983		SJDC Assessed Students* Fall 1985	
White	724,892	65%	2,010	59%
Black	99,251	9%	337	10%
Hispanic	147,943	13%	522	15%
Asian & Filipino	127,715	11%	293	9%
American Indian	17,375	2%	78	2%

*Omits others and non-respondents.



PERFORMANCE IN READING BY ETHNIC GROUP
1984 and 1985

FIGURE 1

ERIC CLEARINGHOUSE
FOR JUNIOR COLLEGES
MAR 14 1986